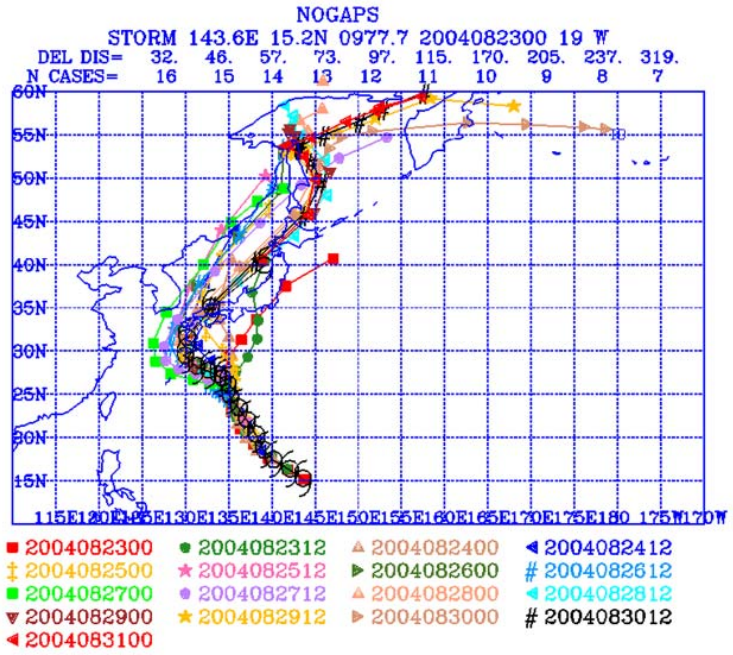
Navy Operational Global Atmospheric Prediction System (NOGAPS)



The Naval Research Laboratory has developed NOGAPS, the U.S. Navy's high-resolution global data assimilation and weather prediction system, which is used for operational medium range weather prediction, for forcing operational mesoscale and oceanographic models, and for numerical weather prediction research. Recent significant improvements to NOGAPS have made the system one of the world's premier tropical weather prediction systems and it is one of the models heavily relied on by the National Hurricane Center for hurricane forecasts in the Atlantic. Also, DOD's Joint Typhoon Warning Center, which has tropical cyclone forecast responsibility for the Western Pacific, has identified NOGAPS as the single best system for tropical storm track prediction.

Advantages: Every 6 hours NOGAPS provides 6-day high-resolution global forecasts.

Selling Points: The cost to sortie ships and planes in port from a single tropical cyclone is approximately $10 million dollars. But the cost of leaving ships and planes in port could be catastrophic (even with moving the Fleet at Norfolk, the Navy has estimated that Hurricane Isabel cost was about $105.6 million). In fiscal year 2004, NOGAPS forecasts were instrumental in decisions effecting Navy assets in Florida and Japan, saving the Navy millions of dollars in sortie costs.

Applications: Global tropical cyclone track forecasting and medium-range weather prediction, coupled air-ocean modeling, predictability research.

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